

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Claim 1 (currently amended): A composition comprising a therapeutically effective amount of a plant material that is thermally processed and that includes one or more phytochemical agents capable of inhibiting at least one of enzymatic and transcriptional activity to ~~prevent~~ inhibit inflammation in a mammal, wherein the plant material comprises an amount from at least 0.5% to less than 5% by weight of the composition and wherein the composition further comprises a component selected from the group consisting of a starch source, a protein source, a fat source and combinations thereof.

Claim 2 (canceled):

Claim 3 (original): The composition according to claim 1, wherein the plant material contains an effective amount of sesquiterpene lactones including an active fragment thereof that includes  $\alpha$ -methylene- $\gamma$ -butyrolactone.

Claim 4 (original): The composition according to claim 1, wherein the plant material is derived from an *Asteraceae* plant family.

Claim 5 (canceled):

Claim 6 (original): The composition according to claim 1, wherein the plant material comprises a chicory extract.

Claim 7 (canceled):

Claim 8 (currently amended): The composition according to ~~claims~~ claim 1, wherein one or more of the phytochemical agents are capable of inhibiting at least one of enzymatic activity derived from cyclooxygenase and transcriptional activity derived from NF- $\kappa$ B.

Claim 9 (canceled):

Claim 10 (original): The composition according to claim 1, wherein the plant material that is thermally processed includes an extruded plant material.

Claim 11 (currently amended): A composition comprising a therapeutically effective amount of a thermally processed plant material that includes one or more phytochemical agents capable of inhibiting at least one of enzymatic and transcriptional activity to treat inflammation in a mammal wherein the phytochemical agents include an effective amount of sesquiterpene lactones including an active fragment that includes  $\alpha$ -methylene- $\gamma$ -butyrolactone and wherein the plant material comprises an amount from at least 0.5% to less than 5% by weight of the composition and wherein the composition further comprises a component selected from the group consisting of a starch source, a protein source, a fat source and combinations thereof.

Claim 12 (canceled):

Claim 13 (canceled):

Claim 14 (original): The composition according to claim 11, wherein the plant material comprises a chicory extract.

Claim 15 (canceled):

Claim 16 (currently amended): The composition according to ~~claims~~ claim 11, wherein one or more of the phytochemical agents are capable of inhibiting at least one of enzymatic activity derived from cyclooxygenase and transcriptional activity derived from NF- $\kappa$ B.

Claim 17 (canceled):

Claim 18 (original): The composition according to claim 11, wherein the thermally processed plant material includes an extruded plant material.

Claim 19 (canceled):

Claim 20 (canceled):

Claim 21 (canceled):

Claim 22 (canceled):

Claim 23 (withdrawn): A pet food product comprising: a starch matrix; and a therapeutically effective amount of a thermally processed plant material comprising a phytochemical agent capable of inhibiting at least one of enzyme and transcriptional activity in a mammal to reduce risk of inflammation.

Claim 24 (withdrawn): The pet food product of claim 23 wherein the thermally processed plant material contains an effective amount of sesquiterpene lactones including an active fragment thereof that includes  $\alpha$ -methylene- $\gamma$ -butyrolactone.

Claim 25 (withdrawn): The pet food of claim 23 wherein the plant material is derived from a plant selected from the group consisting of an *Asteraceae* plant, coffe, soja, chicory, lettuce, extracts thereof, pulps thereof and combinations thereof.

Claim 26 (withdrawn): A pet food product comprising a plant material that includes an effective amount of sesquiterpene lactones including an active fragment thereof that includes  $\alpha$ -methylene- $\gamma$ -butyrolactone derived from a thermally processed plant material selected from the group consisting of a plant associated with an *Asteraceae* plant, chicory, lettuce, coffee, soja, extracts thereof pulps thereof, and combinations thereof in an effective amount to prevent or reduce inflammation.

Claim 27 (withdrawn): A process for preparing a nutritional food product capable of reducing a risk of incidence of inflammation in a mammal, the process comprising the steps of: providing a plant material; processing the plant material to form a plant extract including one or more phytochemical agents capable of inhibiting at least one enzyme activity and transcriptional activity in the mammal; and processing the plant extract and one or more food ingredients to form the nutritional food product that includes at least 0.5% by weight of the plant extract.

Claim 28 (withdrawn): The process of claim 27, wherein the plant material is thermally processed, to provide an effective amount of sesquiterpene lactones including an active fragment thereof that includes  $\alpha$ -methylene- $\gamma$ -butyrolactone.

Claim 29 (withdrawn): The process of claim 27, wherein the plant material is extruded.

Claim 30 (withdrawn): The process of claim 27, wherein the plant material is derived from a plant extract selected from the group consisting of an *Asteraceae* plant coffee, soja, chicory, lettuce, extracts thereof, pulps thereof and combinations thereof.

Claim 31 (withdrawn): The process of claim 27, wherein the plant extract is processed by defatting the plant material to form a first plant extract and subsequently processing the first plant extract with ethyl acetate via acid hydrolysis to form the plant extract.

Claim 32 (withdrawn): The process of claim 27, wherein the plant extract further includes a dietary agent selected from the group consisting of antioxidants, glucosamine, omega-3 fatty acids and combinations thereof.

Claim 33 (withdrawn): A method of reducing a risk of inflammation in a mammal at risk of inflammation, the method comprising administering to the mammal a thermally processed and therapeutically effective amount of a composition that contains a plant material including a phytochemical agent capable of inhibiting at least one of enzymatic and transcriptional activity in the mammal.

Claim 34 (withdrawn): The method according to claims 33, wherein the plant material is derived from a plant selected from the group consisting of an *Asteraceae* plant, coffee, soja, chicory, lettuce, extracts thereof, pulps thereof and combinations thereof.

Claim 35 (withdrawn): The method according to claim 33, wherein the phytochemical is capable of inhibiting at least one of enzymatic activity relating to cyclooxygenase and transcriptional activity related to NF- $\kappa$ B.

Claim 36 (withdrawn): The method according to claim 33, wherein the plant material comprises a plant extract derived from chicory.

Claim 37 (withdrawn): The method according to claim 33, wherein the thermally processed plant material contains an effective amount of sesquiterpene lactones including an active fragment that includes  $\alpha$ -methylene- $\gamma$ -butyrolactone.

Claim 38 (withdrawn): The method according to claim 33, wherein the composition comprises an amount of at least 0.5% by weight of the plant material that is thermally processed and contains an effective amount of sesquiterpene lactones including an active fragment that includes  $\alpha$ -methylene- $\gamma$ -butyrolactone.

Claim 39 (withdrawn): A method for reducing a risk of osteoarthritis in a mammal at risk of osteoarthritis, the method comprising administering to the mammal a therapeutically effective amount of a composition including a thermally processed plant material that contains a phytochemical agent capable of inhibiting at least one of enzymatic and transcriptional activity in the mammal.

Claim 40 (withdrawn): The method according to claims 39, wherein the plant material is derived from a plant selected from the group consisting of an *Asteraceae* plant, coffee, soja, chicory, lettuce, extracts thereof, pulps thereof and combinations thereof.

Claim 41 (withdrawn): The method according to claim 39, wherein the phytochemical is capable of inhibiting at least one of enzymatic activity relating to cyclooxygenase and transcriptional activity related to NF- $\kappa$ B.

Claim 42 (withdrawn): The method according to claim 39, wherein the plant material comprises a plant extract derived from chicory.

Claim 43 (withdrawn): The method according to claim 39, wherein the thermally processed plant material contains an effective amount of sesquiterpene lactones including an active fragment that includes  $\alpha$ -methylene- $\gamma$ -butyrolactone.

Claim 44 (withdrawn): The method according to claim 39, wherein the composition comprises an amount of at least 0.5% by weight of the plant material that is thermally processed and contains an effective amount of sesquiterpene lactones including an active fragment that includes  $\alpha$ -methylene- $\gamma$ -butyrolactone.

Claim 45 (withdrawn): A method for reducing a risk of an autoimmune disease in a mammal at risk of the autoimmune disease, the method comprising administering to the mammal a therapeutically effective amount of a composition including a thermally processed plant material that contains a phytochemical agent capable of inhibiting at least one of enzymatic and transcriptional activity in the mammal.

Claim 46 (withdrawn): The method according to claims 45, wherein the plant material is derived from a plant selected from the group consisting of an *Asteraceae* plant, coffee, soja, chicory, lettuce, extracts thereof, pulps thereof and combinations thereof.

Claim 47 (withdrawn): The method according to claim 45, wherein the phytochemical is capable of inhibiting at least one of enzymatic activity relating to cyclooxygenase and transcriptional activity related to NF- $\kappa$ B.

Claim 48 (withdrawn): The method according to claim 45, wherein the plant material comprises a plant extract derived from chicory.

Claim 49 (withdrawn): The method according to claim 45, wherein the thermally processed plant material contains an effective amount of sesquiterpene lactones including an active fragment that includes  $\alpha$ -methylene- $\gamma$ -butyrolactone.

Claim 50 (withdrawn): The method according to claim 45, wherein the composition comprises an amount of at least 0.5% by weight of the plant material that is thermally processed and contains an effective amount of sesquiterpene lactones including an active fragment that includes  $\alpha$ -methylene- $\gamma$ -butyrolactone.

Claim 51 (withdrawn): A method for reducing a risk of cancer in a mammal at risk of cancer, the method comprising administering to the mammal a therapeutically effective amount of a composition including a thermally processed plant material that contains a phytochemical agent capable of inhibiting at least one of enzymatic and transcriptional activity in the mammal.

Claim 52 (withdrawn): The method according to claim 51, wherein the plant material is derived from a plant selected from the group consisting of an *Asteraceae* plant, coffee, soja, chicory, lettuce, extracts thereof, pulps thereof and combinations thereof.

Claim 53 (withdrawn): The method according to claim 51, wherein the phytochemical is capable of inhibiting at least one of enzymatic activity relating to cyclooxygenase and transcriptional activity related to NF- $\kappa$ B.

Claim 54 (withdrawn): The method according to claim 51, wherein the plant material comprises a plant extract derived from chicory.

Claim 55 (withdrawn): The method according to claim 51, wherein the thermally processed plant material contains an effective amount of sesquiterpene lactones including an active fragment that includes  $\alpha$ -methylene- $\gamma$ -butyrolactone.

Claim 56 (withdrawn): The method according to claim 51, wherein the composition comprises an amount of at least 0.5% by weight of the plant material that is thermally processed and contains an effective amount of sesquiterpene lactones including an active fragment that includes  $\alpha$ -methylene- $\gamma$ -butyrolactone.

Claim 57 (withdrawn): A method for inhibiting COX-2 activity in a mammal, the method comprising administering to the mammal a composition including a therapeutically effective amount of  $\alpha$ -methylene- $\gamma$ -butyrolactone.

Claim 58 (withdrawn): The method according to claim 57 wherein the composition is capable of reducing at least one of a risk of inflammation, osteoarthritis, autoimmune disease and cancer in the mammal.

Claim 59 (withdrawn): The method according to claim 57 wherein the composition is selected from the group consisting of a nutritional composition, a pharmaceutical and combinations thereof.

Claim 60 (withdrawn): The method according to claim 57 wherein the composition includes an active fragment that includes  $\alpha$ -methylene- $\gamma$ -butyrolactone.



Claim 61 (withdrawn): The method according to claim 57 wherein the active fragment is contained in a plant extract.

Claim 62 (withdrawn): The method according to claim 57 wherein the plant extract is derived from a thermally processed plant material selected from the group consisting of an *Asteraceae* plant, coffee, soja, chicory, lettuce, extracts thereof, pulps thereof and combinations thereof.

Claim 63 (currently amended): A composition comprising an active fragment derived from a thermally processed plant material, the active fragment including  $\alpha$ -methylene- $\gamma$ -butyrolactone wherein the active fragment in an effective amount is capable of inhibiting at least one of enzyme and transcriptional activity to ~~prevent or reduce~~ inhibit inflammation, wherein the plant material comprises an amount from at least 0.5% to less than 5% by weight of the composition and wherein the composition further comprises a component selected from the group consisting of a starch source, a protein source, a fat source and combinations thereof.

Claim 64 (previously presented): The composition according to claim 63, wherein the active fragment is capable of inhibiting at least one of enzymatic activity derived from cyclooxygenase and transcriptional activity derived from NF- $\kappa$ B.